Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-29 (canceled)

30. (New) A data storage device comprising:

a device interface for receiving data access requests;

a device housing conforming to a standard form factor;

a plurality of non-volatile memory devices housed within the device housing; and

a controller that accesses the non-volatile memory devices in response to the received data access requests.

31. (New) The data storage device of claim 30, wherein the interface comprises an interface configured to conform to a protocol.

32. (New) The data storage device of claim 31, wherein the protocol comprises at least one of the following: SCSI (Small Computer System Interface), Fibre Channel, and Infiniband.

33. (New) The data storage device of claim 30 wherein the plurality of non-volatile memory devices include at least one of flash memory; compact flash memory; magnoresistive RAM; ferroelectric RAM; any type of volatile memories, such as dynamic and static RAM, maintained as non-volatile with the use of a power subsystem; mechanical memory devices and microelectromechanical memory devices.

34. (New) The data storage device of claim 30, wherein the device housing conforms to at least one of the following standard form factors: full-height, half-height, and low-profile.

35. (New) The data storage device of claim 30, wherein the controller comprises a controller configured to implement a RAID scheme.

36. (New) The data storage device of claim 35, wherein the scheme implemented by the controller comprises a RAID scheme independent of a hierarchically higher RAID controller that sends the data storage device RAID data.

37. (New) The data storage device of claim 30, further comprising a cache manager.

38. (New) The data storage device of claim 37, wherein the cache manager comprises a manager configured to perform at least one of the following: translate an address of a different storage device to a cache address; cache data included in a write request; load data from the different storage device; and remove cached data.

39. (New) The data storage device of claim 30, further comprising a controller card that includes the controller and connections available to couple with more than one storage card that provides access to the plurality of non-volatile memory devices.

40. (New) The data storage device of claim 39, wherein the storage card comprises a card having at least one parallel interface to a collection of the drives.

41. (New) The data storage device of claim 39, wherein the connection between the controller and the storage card comprises a serial connection.

42. (New) The data storage device of claim 39, wherein the controller comprises a bank interface that routes data requests to an appropriate bank of drives.

43. (New) A data storage system comprising:

at least one first data storage device having a platter size of at least 3.5 inches in diameter;

at least one second data storage device comprising:

a device interface for receiving data access requests;

a device housing conforming to a standard form factor;

a plurality of non-volatile memory devices housed within the device housing; and

a first controller configured to receive data access requests from the device interface; and

a second controller that coordinates data access to the at least one first data storage device and the at least one second data storage device.

44. (New) The data storage device of claim 43 wherein the plurality of non-volatile memory devices include at least one of flash memory; compact flash memory; magnoresistive RAM; ferroelectric RAM; any type of volatile memories, such as dynamic and static RAM, maintained as non-volatile with the use of a power subsystem; mechanical memory devices and microelectromechanical memory devices.

45. (New) A method of servicing data access requests at a data storage device, the method comprising:

receiving data access requests at a device interface of the data storage device; and

accessing a plurality of non-volatile memory devices housed within a standard form factor device housing in response to the received data access requests.

46. (New) The method of claim 44 wherein the plurality of non-volatile memory devices include at least one of flash memory; compact flash memory; magnoresistive RAM; ferroelectric RAM; any type of volatile memories, such as dynamic and static RAM, maintained as non-volatile with the use of a power subsystem; mechanical memory devices and microelectromechanical memory devices.

47. (New) A data storage device comprising:

a device interface for receiving data access requests;

a plurality of non-volatile memory devices; and

a controller that accesses the non-volatile memory devices in response to the received data access requests;

wherein the controller comprises a controller configured to implement a RAID scheme.

48. (New) The data storage device of claim 47, wherein the scheme implemented by the controller comprises a RAID scheme independent of a hierarchically higher RAID controller that sends the data storage device RAID data.

49. (New) A data storage device comprising:

a device interface for receiving data access requests;

a plurality of non-volatile memory devices; and

a controller that accesses the non-volatile memory devices in response to the received data access requests;

wherein the plurality of non-volatile memory devices include at least one of flash memory; compact flash memory; magnoresistive RAM; ferroelectric RAM; any type of volatile memories, such as dynamic and static RAM, maintained as non-volatile with the use of a power subsystem; mechanical memory devices and microelectromechanical memory devices.

50. (New) A data storage device comprising:

a device interface for receiving data access requests;

a plurality of non-volatile memory devices; and

a controller that accesses the non-volatile memory devices in response to the received data access requests;

wherein the controller is configured to access the non-volatile memory devices in a manner that emulates access to a single disk drive.